

#5

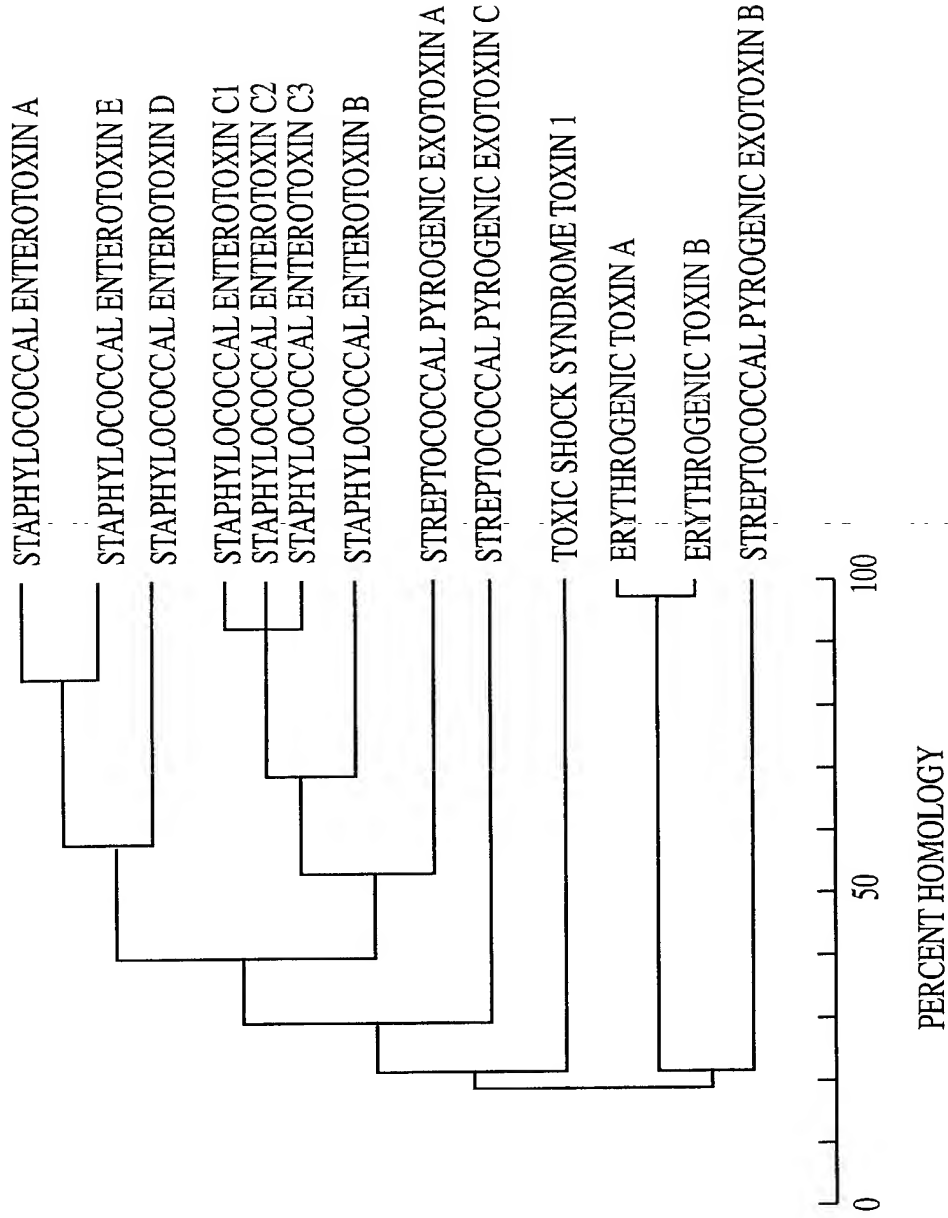


FIG. 1

FIG. 2A

Figure 1 is a line graph showing the effect of SEA concentration on the growth of various *E. coli* strains. The x-axis represents SEA concentration in μM on a logarithmic scale, ranging from 10^{-4} to 10^1 . The y-axis represents growth, ranging from 0 to 500. The legend identifies the following strains: WT (open circle), D197N (open circle), Y64A (filled square), SED (filled circle), Y92A (open circle), Y97Y (filled triangle), and Y108A (open triangle). WT, D197N, Y64A, and SED show high growth at higher SEA concentrations, while Y92A, Y97Y, and Y108A show significantly reduced growth.

SEA [μM]	WT	D197N	Y64A	SED	Y92A	Y97Y	Y108A
10^{-4}	0	0	0	0	0	0	0
10^{-3}	10	10	10	10	10	10	10
10^{-2}	50	50	50	50	10	10	10
10^{-1}	150	150	150	150	20	20	20
10^0	300	300	300	300	30	30	30
10^1	450	450	450	450	100	100	100

FIG. 2B

SEB [μM]	WT	D199N	L45R	Y61A	L89A	Y115A	E67Q	Y94A
10 ⁻²	~5	~5	~5	~5	~5	~5	~5	~5
10 ⁻¹	~5	~5	~5	~5	~5	~5	~5	~5
10 ⁰	~15	~15	~10	~10	~10	~10	~10	~10
10 ¹	~190	~185	~10	~10	~25	~20	~10	~10

FIG. 2C

Superantigen [nM]	SEA L11Y	SEB D199N	SEA Y64A	SEB Y61A	SEB Y89A
10 ⁻⁴	~10,000	~10,000	~5,000	~5,000	~5,000
10 ⁻³	~40,000	~20,000	~10,000	~10,000	~10,000
10 ⁻²	~1,000,000	~60,000	~25,000	~15,000	~10,000
10 ⁻¹	~1,250,000	~65,000	~50,000	~30,000	~15,000
10 ⁰	~1,650,000	~1,150,000	~950,000	~800,000	~450,000
10 ¹	~1,700,000	~1,550,000	~1,000,000	~900,000	~500,000
10 ²	~1,750,000	~1,500,000	~950,000	~850,000	~650,000
10 ³	~1,750,000	~1,500,000	~950,000	~850,000	~650,000

SEA	SHDQF	QHTILFKGFFTDH	SWYNDLLV	FDSKD	IVDKYK	GKKVD	LYGAY	GYQCA	.....	GGTPN	KTACM	GGVTL	HDNNRL	TEEKK
SED	TGDQF	ENTLLYKKFFTD	LINFEDLLI	FNSKEM	AQHFK	SKNVD	VYPIR	SINCY	.....	GGEID	R TACT	GGVTP	HEGNKL	KERKK
SEE	SDDQF	ENTLLFKGFFTG	HPWYNDLLV	LGSKD	ATNKYK	GKKVD	LYGAY	GYQCA	.....	GGTPN	KTACM	GGVTL	HDNNRL	TEEKK
SEB	SIDQF	YFDLI	YSIKDTKLG	NYDNVRV	FNKDL	ADKYK	DKYVD	VFGAN	YYQCY	FSSK	TNDIN	SHQTD	KRKT	CM
SEC1	SVDKF	AHDLI	YNISDKKL	KNYDKVKT	LLNEGL	AKKYK	DEVVD	VYGSN	YVNCY	FSSK	DNVGV	TGG...KT	CM	GGITK
SEC2	SVDKF	AHDLI	YNISDKKL	KNYDKVKT	LLNED	LAKKYK	DEVVD	VYGSN	YVNCY	FSSK	DNVGV	TGG...KT	CM	GGITK
SEC3	SVDKF	AHDLI	YNISDKKL	KNYDKVKT	LLNED	LAKKYK	DEVVD	VYGSN	YVNCY	FSSK	DNVGV	TGG...KT	CM	GGITK
SPEa	SVDQL	SHDLI	YNVSG...PNY	DKLKT	LKNQEM	ATLTK	DKNVD	IYVE	YHLCYL	CENAE	.....	RSACI	GGVTN	HEGNHLEIPK
TSST1	VLDNS	GSMRI	KNTD.....GS	ISLI	FPSPYY	SPAFTK	GEKVD	LNTRK	KKSQHT	SEG.....TYI	HF.Q	SGVTNT	EKLPT...	P

FIG. 3



FIG. 4A

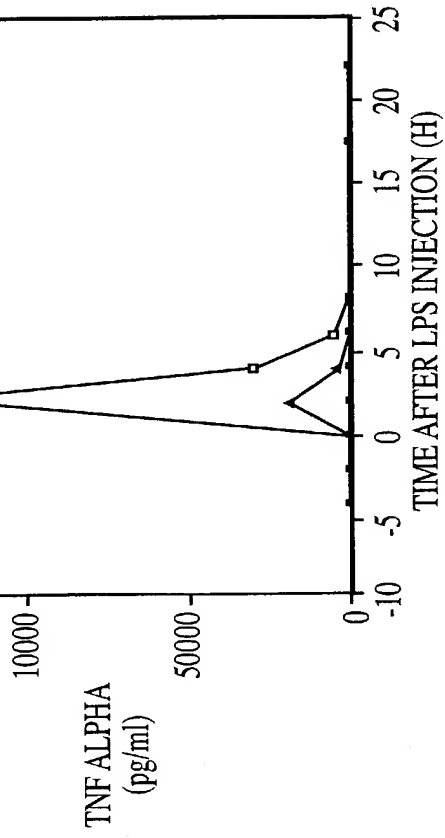


FIG. 4B

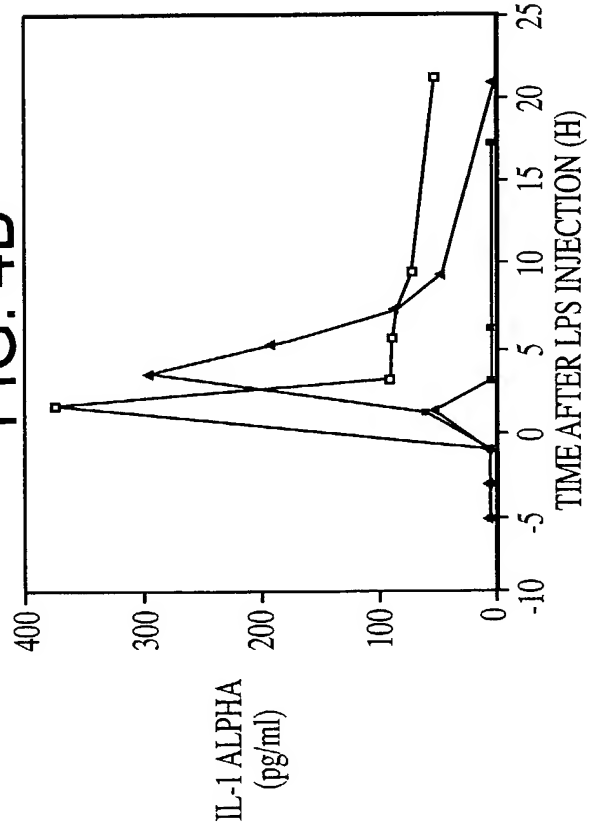


FIG. 4C

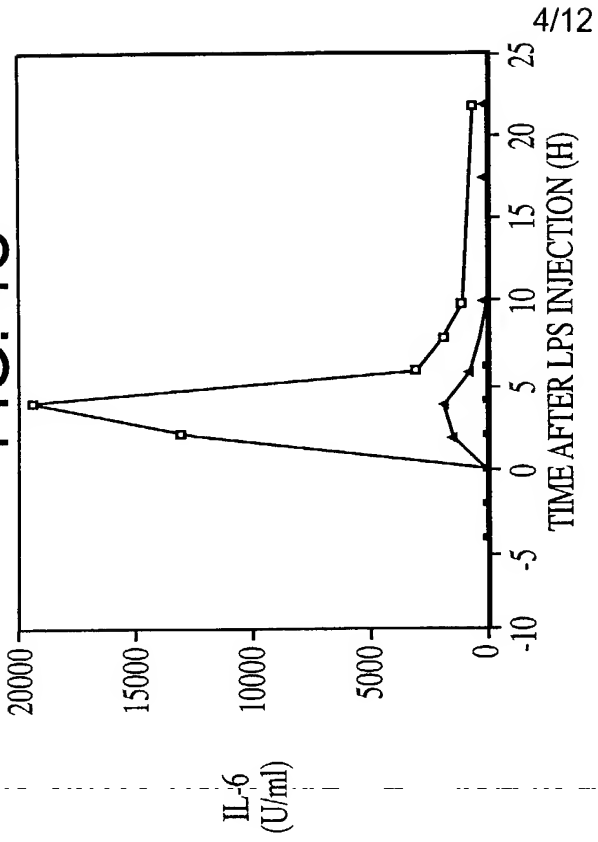
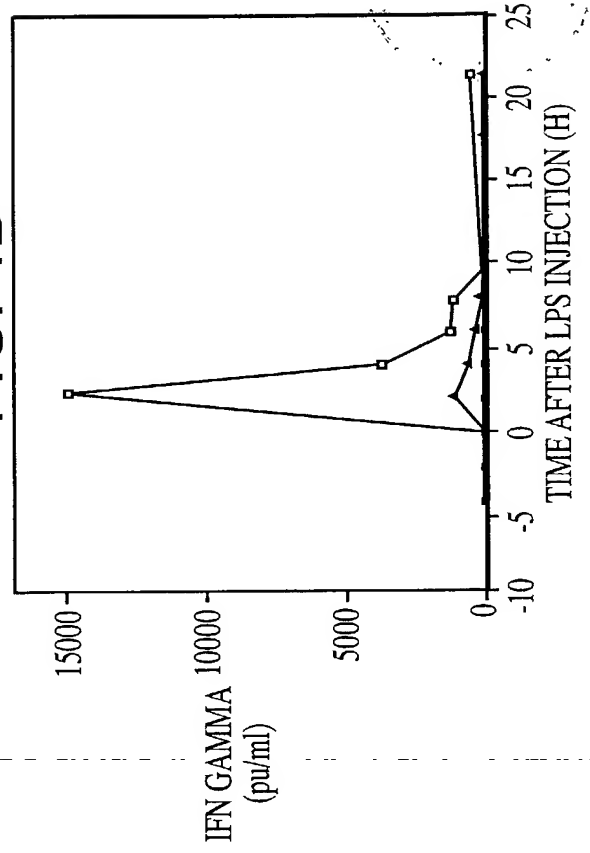
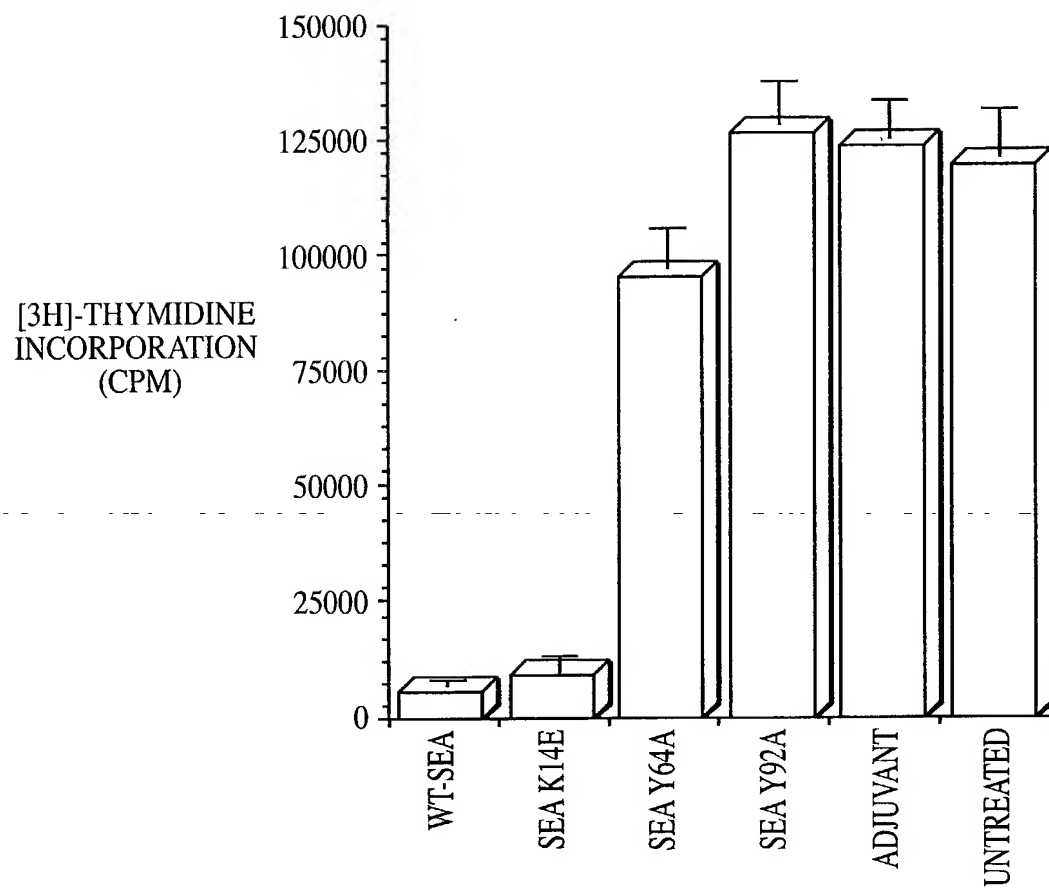


FIG. 4D



5/12

**FIG. 5**

6/12

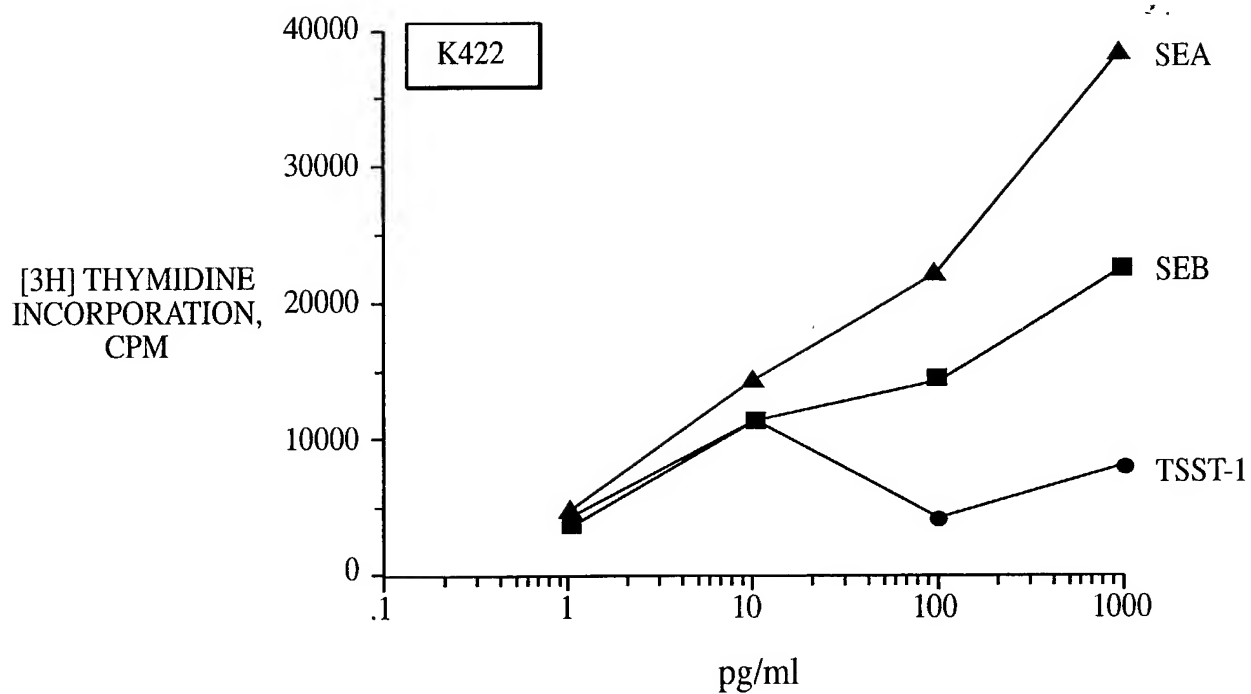


FIG. 6A

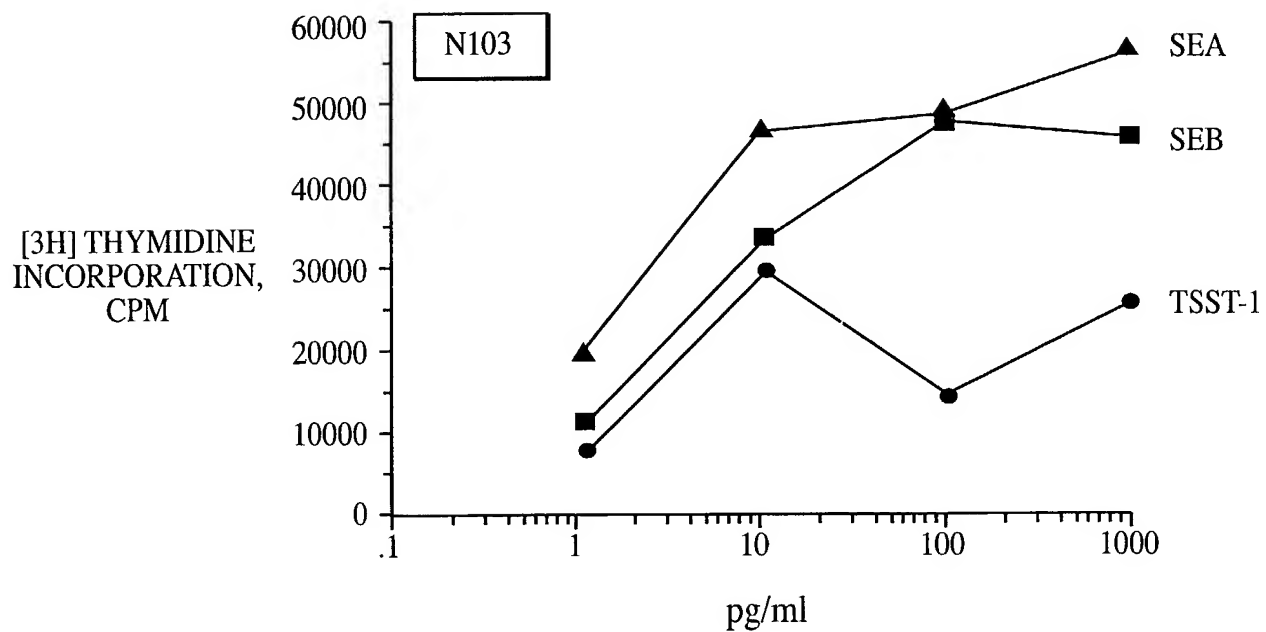


FIG. 6B

7/12

FIG. 7A

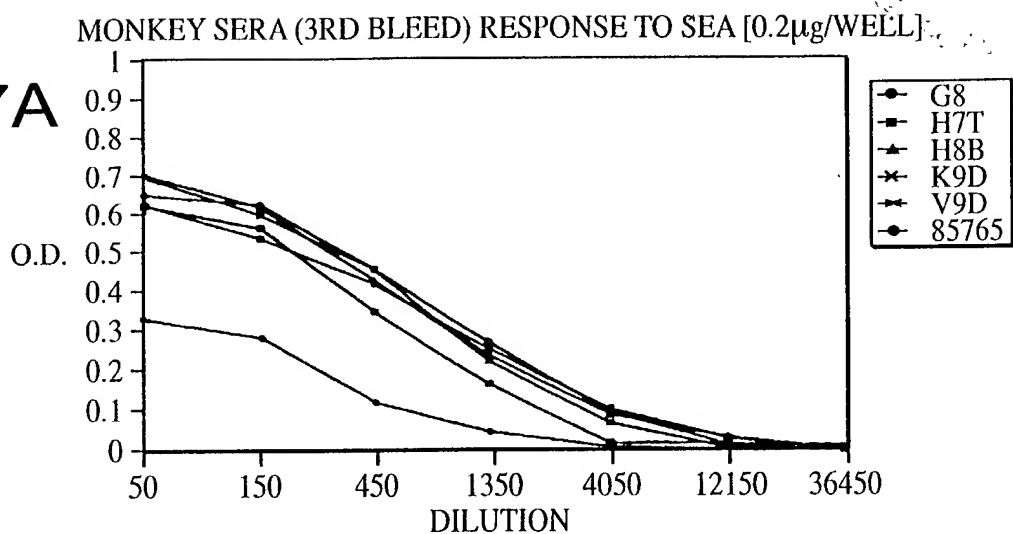


FIG. 7B

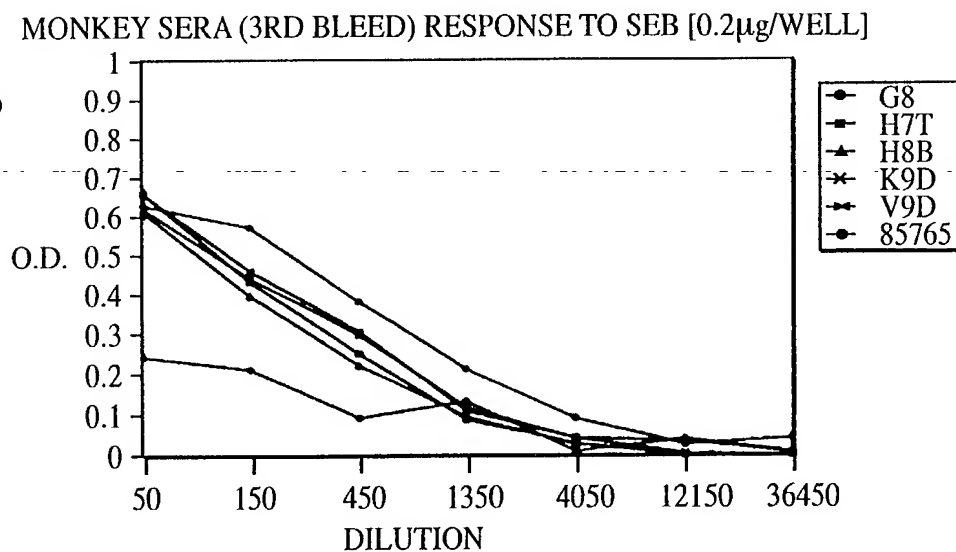
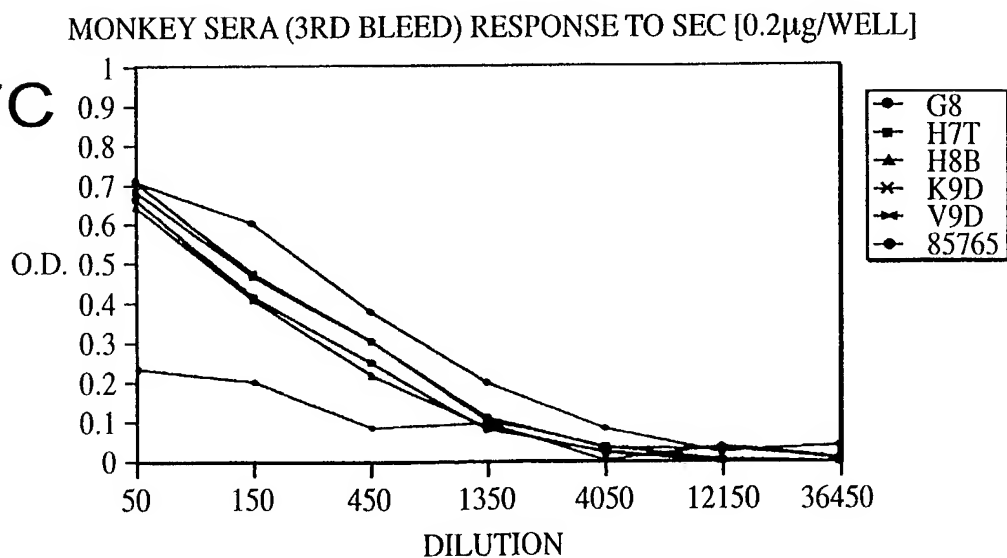


FIG. 7C



8/12

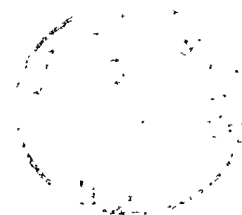


FIG. 8A

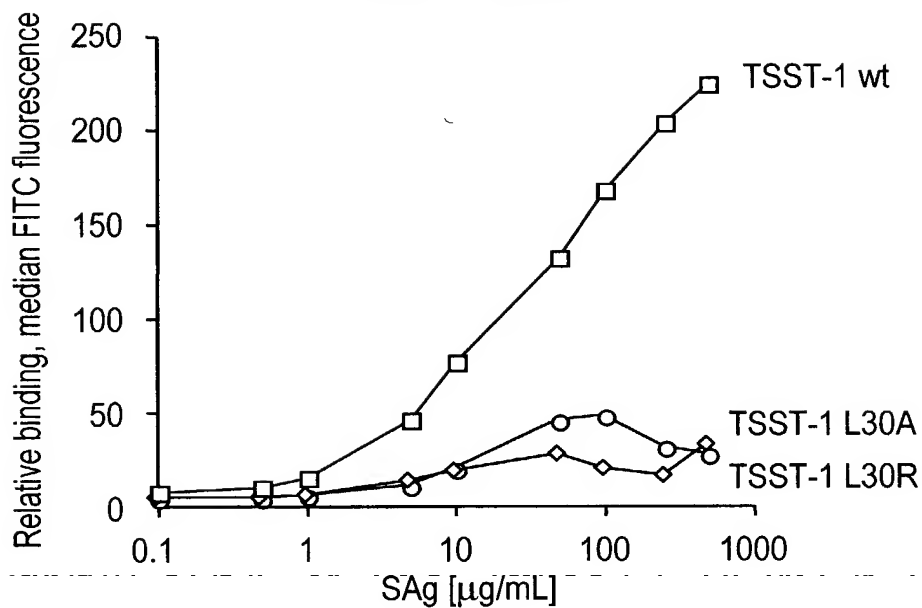
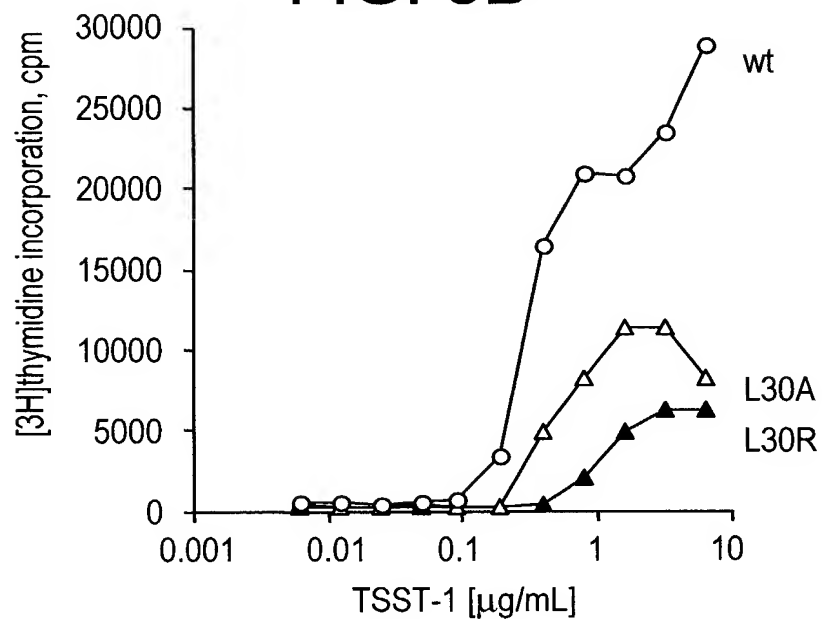


FIG. 8B



9/12



FIG. 8C

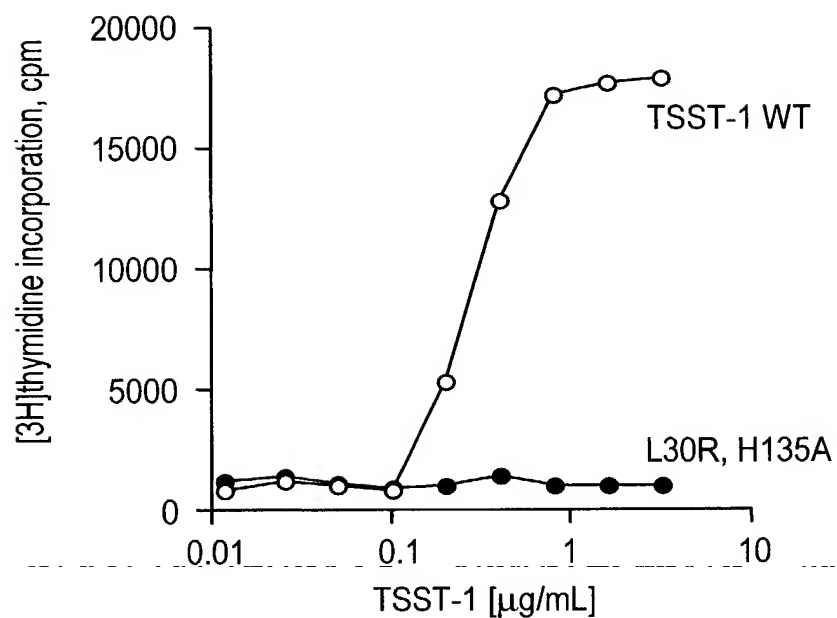
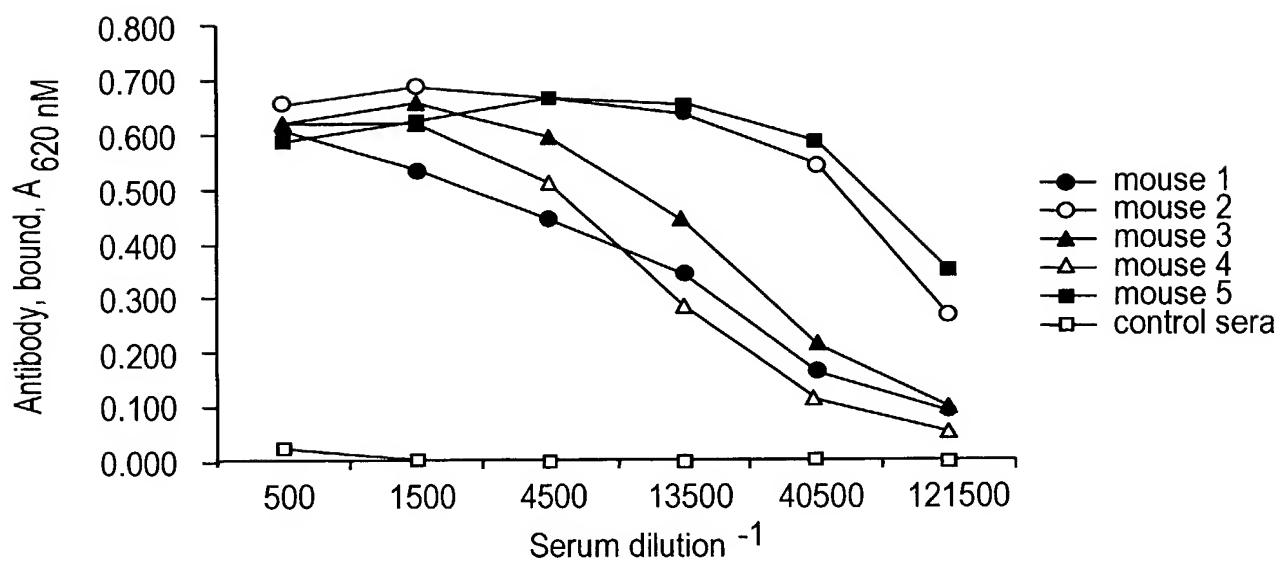


FIG. 9



10/12

FIG. 10A

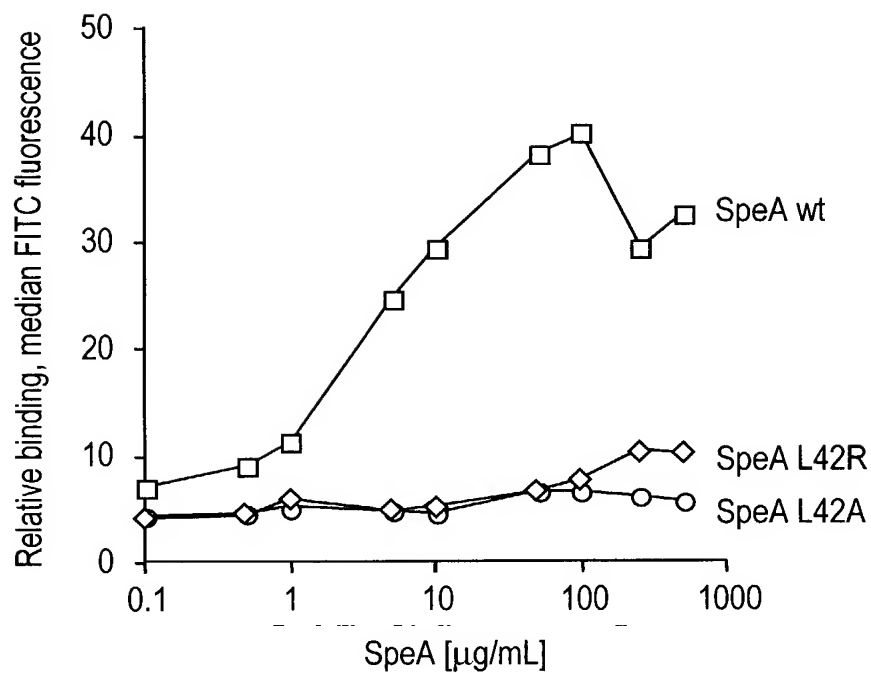
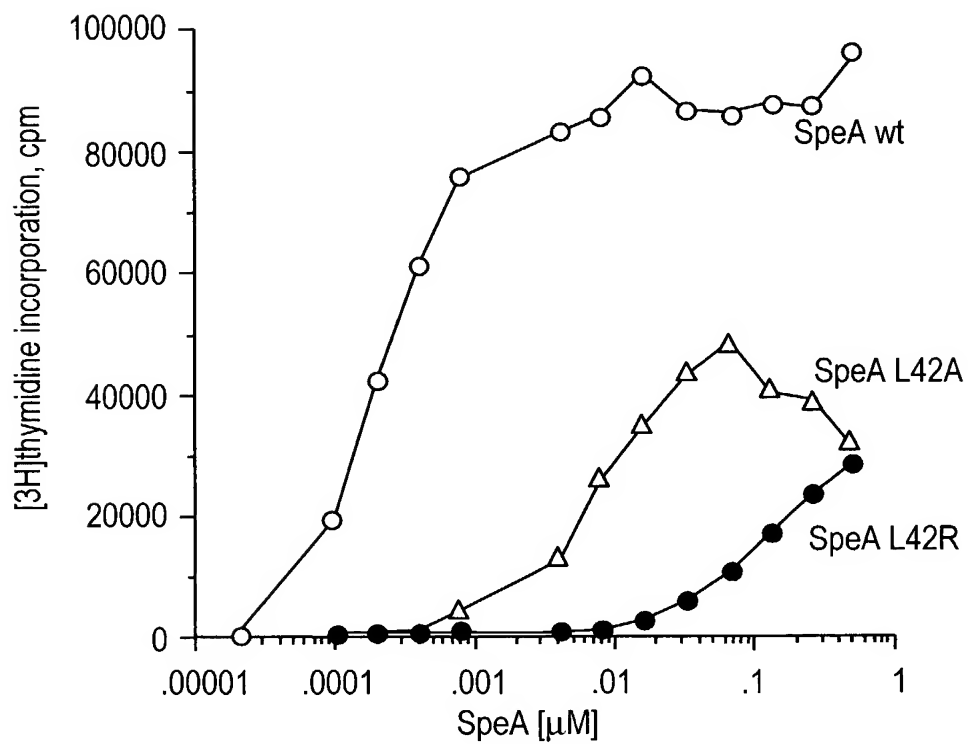


FIG. 10B



11/12

FIG. 11A

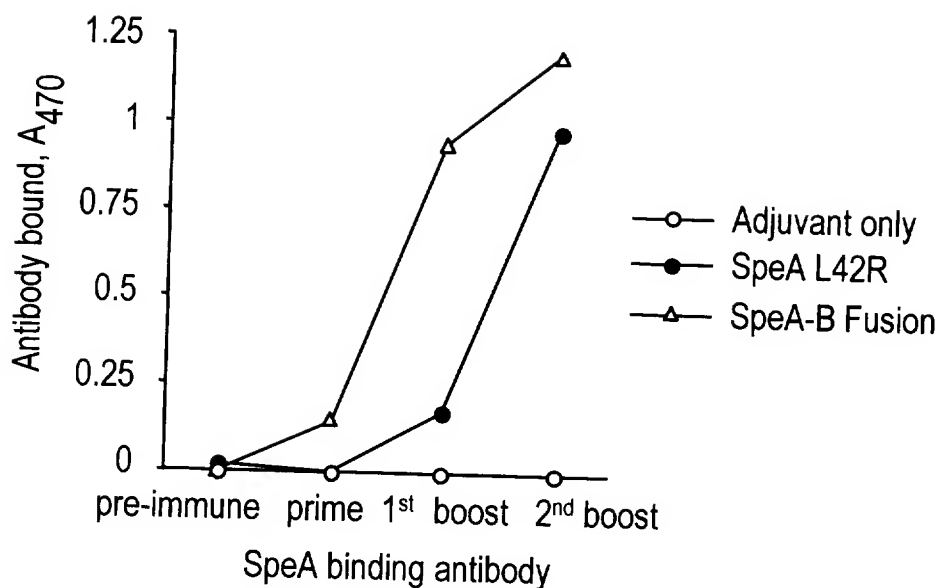


FIG. 11B

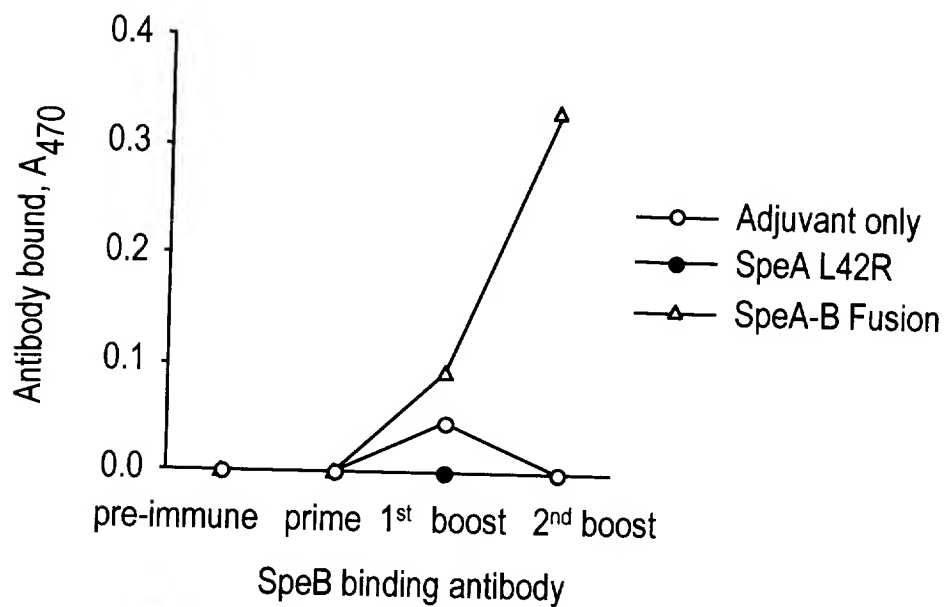


FIG. 11C

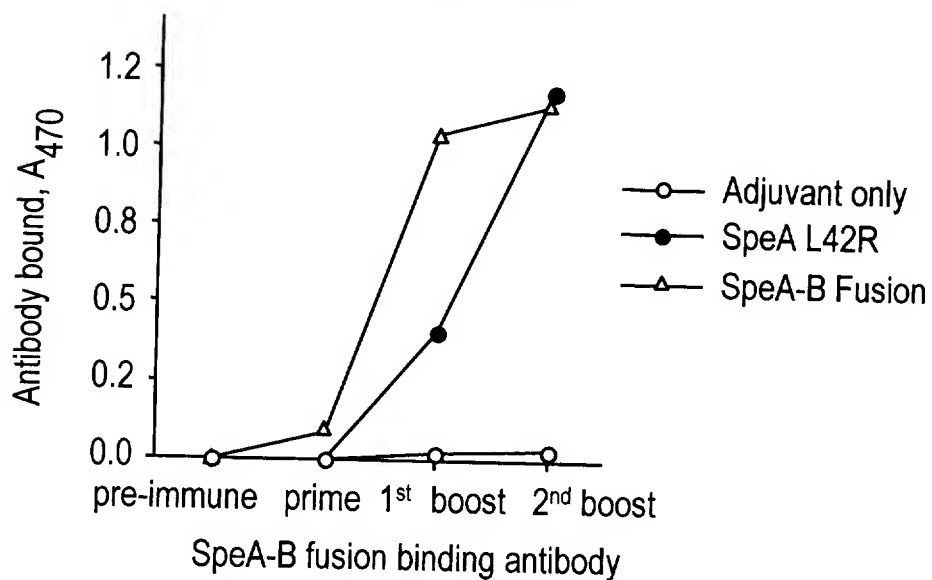


FIG. 12A

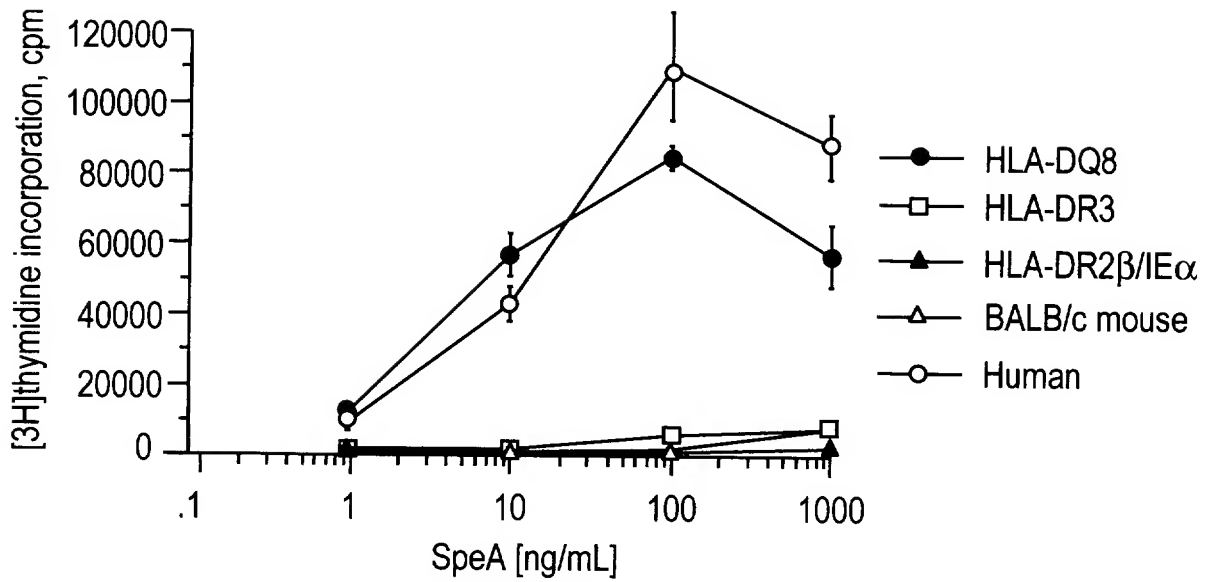


FIG. 12B

